TEST: FOLATE

PRINCIPLE:
Folates are a subset of vitamins related to pteroylglutamic acid (PGA) that function as coenzymes in metabolic reactions involving the transfer of single carbon units. Folate and vitamin B12 are necessary for DNA synthesis, and consequently normal red blood cell maturation. Folate deficiency can lead to macrocytic (megaloblastic) anemia. Folate is obtained from dietary sources including fruits, green and leafy vegetables, yeast and organ meats. Folate is absorbed from the small intestine and stored in the liver. Low folate intake, malabsorption as a result of gastrointestinal diseases, pregnancy and the use of drugs such as phenytoin, oral contraceptives and excessive concentrations of alcohol are causes of folate deficiency. Low serum folate concentrations are an early indication of folate depletion and precede depletion in the tissues. Adequate folate concentrations during pregnancy are also important in the prevention of neural tube defects (NTD) in infants. Folate supplementation prior to conception and in the first weeks of pregnancy reduces the incidence of NTD affected births. 3

SPECIMEN REQUIREMENTS:
2ml serum collected in a red top tube with no additive or in a serum separator tube (gel barrier). Serum should be separated from the clot as soon as possible to avoid hemolysis. Store/transport sample ASAP at 2-8°C for up 8 hours. If testing is further delayed, sera should be frozen at -20°C or lower for up to 6 months. Avoid repeat freeze-thaw cycles.

METHOD:
Enhanced Chemiluminescence.

REFERENCES:

Normal range: 5.9 to > 24.8 ng/mL

Turnaround time: One Week